

**BUILDING DEVELOPMENT COMMISSION
2017 ANNUAL REPORT TO THE
BOARD OF COUNTY COMMISSIONERS
FEBRUARY 20, 2018**

**2017 BDC ACTIVITY FOCUS
FY18 CHALLENGES - ALL**

The following is a summary of significant activities impacting the design and construction community on which the Building Development Commission and the Code Enforcement Department have focused on from January 1, 2017 through December 31, 2017. Further details on each of these follows:

1. Veteran Apprenticeship Program Year One
2. A/E Pass Grade Incentive Program
3. RTAC CTAC Audit
4. High Superior Professional Certification
5. FY18 Budget Proposal
6. Mega Team Realignment
7. Technology Enhancements
8. Building with our Veterans - Year Two
9. Customer Satisfaction Survey
10. Governance Progress
11. Code Heroes
12. Open Counter
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19. Governance
20. Inspector Client Feedback

1. VETERAN APPRENTICESHIP PROGRAM YEAR ONE

Back on October 20th, 2015, the County Manager with the BDC, announced a new program designed to offer a career path for veterans interested in construction. "Building with our Veterans" is a joint effort by Central Piedmont Community College, the Veterans' Services Office of Mecklenburg County, Community Support Services and Mecklenburg County Code Enforcement. Since the program's creation and completion of 12 months of the program, Code Enforcement has hired 5 candidates. With this being the first year of a very successful program, we are providing a growth path for new "trainee" positions focusing on residential construction. Code Enforcement with the BDC, will work on evaluating the success of the program for the next year's fiscal budget, to maintain growth for attracting new candidates in this profession.

2. ARCHITECT – ENGINEER (AE) FEEDBACK TOOL FY17 RESULTS

The department wanted to follow up with the report to the BDC on the FY17 results of the AE survey feedback tool for the first and second quarters. This tool automatically sends a short survey, focusing on plan review service performance (not code interpretation), to the listed responsible AE seal holders, at the close of each discipline review cycle. The survey focuses only on building, electrical, mechanical and plumbing plan reviews.

- From 7-1-16 thru 12-31-16, the AE feedback tool sent 5,571 surveys to the responsible AE on each Mega or OnSchedule review discipline cycle as it closed. Results are as follows:
 - 895 respondents; a 16 % response rate, which is very good
 - 49% of the grades fell in the ranking of exceeded expectations-excellent – exceptional
 - 47% of the grades fell in the ranking of acceptable – met expectations
 - 4% of the grades fell in ranking of unacceptable – needs improvement

3. RESIDENTIAL AND COMMERCIAL TECHNICAL ASSISTANCE CENTER (RTAC-CTAC) AUDIT

On June 21st, 2016, the Department advised the commission of plans to launch an audit of the plan review scope performed within Residential Technical Assistance Center for single family (RDS), as well as the Commercial Technical Assistance Center (CTAC) for small commercial projects. The RDS audit conducted 4 meetings from June 24th through August 5th. CTAC audit held 6 meetings through September 9th through November 3rd. Some of the key parts are as follows:

- To verify what is currently being reviewed and what is the minimum a field inspector would like them to focus on for assistance.
- It is very important that Master Plans based on SF permits, have construction drawings on site clearly identifying which options apply to the particular permit. Contractors can either do this by limiting the set of the appropriate plans and details, or bubble / highlight the full set showing what is applicable.
- CTAC was broken into fifteen project categories. Some of these categories are Fire repairs (any occupancy), office up-fits in strip centers, office up-fits in high rise buildings, medical offices, buildings, MEP equipment changes (not like for like) and special events.

In addition, during the RDS-CTAC audit project, the Department addressed some issues that went outside the plan review audit, but directly impact our service to customers, specifically:

- The Department confirmed the latitude to require AE's on selected poorly performing residential projects.
- When a set of drawings is fully sealed by a NC licensed design professional, the Department will stamp the set "not reviewed for code compliance" and after zoning approval, move the project directly into the permitting process.

- The Department clarified when Architects may perform incidental engineering work and the conditions by which an NC licensed PE may perform building design.

Moving forward, completing the RDS-CTAC audit requires the following action items:

- RDS: instruct staff to use the new plan review checklists.
- RDS: create a pilot program for SF renovation projects with structural changes, including supporting technology.
- CTAC: instruct staff to use the new plan review checklists.
- RDS & CTAC: distribute the Department policy on limited review scope for projects with AE seals.

4. HIGH SUPERIOR PERFORMING (PROFESSIONAL CERTIFICATION PROGRAM)

As follow up to work submitted to the BDC in September and November, we discussed an idea to create a new benefit within OnSchedule for High Superior Performing AE's. In November, we reported to BDC the results of the RDS-CTAC audit conducted from June thru November. As part of that we suggested a different plan review demeanor towards AE sealed sheets on small projects (limited to projects in RDS-CTAC). We have made some minor changes to the existing program to include those AE's that have performed at a higher level within the existing program. We created some new sections listed in the program 3.1 for OnSchedule projects and 3.2 for CTAC and RDS.

Some of the changes within 3.1 are as follows.

- To be eligible, the LDP must hold a 12-month score in AE Pass Rate of 95% or higher.
- The entire project LDP team must meet or exceed the 95% threshold.
- This program component is limited to:
 - OnSchedule projects only with,
 - B, M or F occupancies and a maximum of 20,000 sq. ft. project size or work area.
- Other program exclusions; restaurants and projects in Charlotte with exterior work.
- Projects with "95%" LDP teams hold that status through the life of the project.
- LDP's who fall below the 95% threshold start working again to create a 12-month track record in OnSchedule of scoring at or above 95%.

Residential Drawing Submittal and Commercial Technical Assistance Center (RDS and CTAC)

- Drawings submitted must meet plan submittal guide criteria posted on the web.
- Where an entire set of construction documents include the Professional Certification Statement and are sealed by the LDP, we will not conduct a plan review.
- Instead, we will stamp the set "not reviewed for code compliance".
 1. Where selected sheets or details are LDP sealed and submitted (including the Professional Certification Statement), the Department will review only the balance of the drawings.
- As noted in item 2.6 of the program, the owner must still gain local ordinance hold release.
- LDP's may request a code compliance review, to be charged as an added service.

5. FY18 BUDGET PROPOSAL

In February 2017, the Department began work with the BDC developing the FY18 budget proposal; this effort concluded in the BDC's March 21, 2017 meeting, where the FY18 budget expense and revenue proposal was reviewed and was accepted unanimously by a formal vote of the BDC. In this process, the BDC's Budget Subcommittee worked with Department leadership addressing many budget related issues, including forecast of plan review and inspection service

demand for FY18, as well as, the assessment of near term and long-term technology initiatives and development necessary to support the Department.

6. MEGA TEAM REALIGNMENT

The Mega Team realignment is in its final phase with transfer of positions near completion. We are planning a soft rollout on July 1st. Projects that are currently assigned to OnSchedule and the former Mega Team will be transferred once the project review is complete. We will continue to work in collaboration with design teams as we move forward. Our strategy is to finish with a hard rollout in September when all training has been completed. Currently, 18 Code Enforcement Officials have been selected for the new Mega Team. We will follow-up with a report to the BDC in October.

7. TECHNOLOGY ENHANCEMENTS

In January 2017, ITS began initiating steps to move forward with backlogged requests for modifications and changes. Criteria used to facilitate the alignment of requests were public facing technology, BDC priority, team velocity, 3rd party vendor availability and financial impact. Strategy for rollout of enhancements are being made possible through Scrum sprints. Scrum sprints are regular, repeatable work cycles in which work is completed and review within a 30-day period. Sprints 1 and 2 were completed w/in the first quarter. Various enhancements within these sprints include; ability for contractor to see closed permits, advanced filter search functionality, auto-notify, E-Plan submittal enhancements, RTAP project holds and approved as noted outcomes, CTAC/RTAC customer notifications, online permit application for residential swimming pools, the allowance of sub-trades for mechanical or plumbing internet permit applications; just to name a few.

8. BUILDING WITH OUR VETERANS – YEAR TWO

We have now completed a very successful first year of our veteran apprenticeship program. At year end of this annual program, veterans had the opportunity to take state examinations and pursue employment with Mecklenburg County. We are extremely pleased to report that each veteran who participated in the 2016 inaugural program have been hired by Mecklenburg County Code Enforcement. Applications are now being accepted from veterans who wish to participate in year two of Building with our Veterans.

9. CUSTOMER SATISFACTION SURVEY

Ed Gagnon of Customer Service Solutions, Inc., provided an overview of the 2017 Code Enforcement Customer Satisfaction Survey. All members of the Building Development Commission received an electronic copy of the Customer Satisfaction Survey results on Friday, June 6th. Mr. Gagnon has worked with the Code Enforcement Leadership Team for many years, surveying targeted industry groups who access County Code Enforcement services. Mr. Gagnon's presentation described the survey's structure, the response rate, significant findings and conclusions. Click on the link below for an overview of results presented to the Board [2017 Customer Satisfaction Survey - BDC Overview](#)

10. GOVERNANCE PROGRESS

The Governance charter is currently being drafted by City and County staff through a forum which includes four (4) Mecklenburg County employees, four (4) City of Charlotte employees, the County Manager and the City Manager. The UDSC governance is scheduled to be in place

by July 1st. The draft charter is scheduled for review. One of the first priorities of the UDSC is the development and implementation of a 'Single Portal'. The Chair and Vice-Chair of the BDC and DSTAC will meet quarterly. DSTAC currently has 10 members who provide direction to City staff as needed. This improvement will allow better coordination between the City of Charlotte and Mecklenburg County.

11. CODE HEROES

May is Building Safety Month and a time to say thank you to those builders, designers and developers that make Mecklenburg County a better, more interesting and safer place to live. This year, Mecklenburg County Code Enforcement recognized three (3) outstanding entities as Building Code Heroes. 2017 Building Code Heroes are:

- **Amec Foster Wheeler**

Mr. George Luckenbaugh and Team

With Amec, it's not just about solving an engineering problem. Their dedication to safeguarding the occupants of the building and the surrounding community is absolute, and more than that, they're dedicated to something we also hold near and dear to our hearts at Code Enforcement...a thriving Charlotte-Mecklenburg.

- **Barringer Construction**

Mr. Yates Warwick and Team

Barringer has demonstrated a dedication to quality construction, but more than that, they've demonstrated a commitment to safe construction, and to superior customer service, which are core of Mecklenburg County Code Enforcement.

- **Optima Engineering**

Keith Pehl and Team

Optima is a firm that focuses primarily on sustainability. It's their passion. This team is focused on giving back to this community in the long-term. That's the kind of people you want helping to build your community.

12. OPEN COUNTER

Open Counter is a new delivery service tool which helps the novice and new business owner when opening a business within the City of Charlotte. Along with the City, Code Enforcement reached out to the Charlotte Chamber and other new business owners to provide beta testing; they all agreed this is a good product. Open Counter is geared for new business operations and will effectively help the novice customer with initial startup and basic code requirements to include; zoning, phasing and code enforcement permitting. Peter Koht, Co-Founder and COO of Open Counter, provided a demonstration of this program designed for the new business owner. Select the below link to access Open Counter.

<https://charlottemecklenburg.opencounter.com/>

13. CLIENT FEEDBACK TOOL

Inspection Client Feedback Tool for the Residential Team received responses as follows; 630 exceptional, 406 excellent, 186 exceeds expectation, 16 acceptable, 846 met expectations, 23 needs improvement and 26 unacceptable. The Commercial Team received 294 exceptional, 246 excellent, 104 exceeded expectations, 233 met expectations, 9 acceptable, 15 needs improvement and 7 unacceptable responses. The Mega Team received 98 exceptional, 56

excellent, 8 exceed expectations, 63 met expectations, 1 acceptable and 2 unacceptable responses.

AE Feedback Tool for Plan Review distributed 11,537 surveys to the responsible AE on a Mega or OnSchedule review discipline cycle as it closed. 1,862 (16%) responses received. Out of 11,456 questions (each respondent is asked 8 questions) 3.81% unacceptable-needed improvement, 45.85% acceptable-met expectations and 50.33% exceeded expectations-excellent-exceptional.

14. JOURNEYMAN PROGRAM ENDS

Mecklenburg County will sunset its electrical, mechanical, and plumbing journeyman programs effective Dec. 31.

Through the years, changes in licensing regulations and journeyman programs across the state all but eliminated the need for Mecklenburg County's program. After careful consideration and consultation with other counties in North Carolina, Code Enforcement staff decided that there is no discernable benefit in continuing the journeyman program at the local level in Mecklenburg County.

The program was a success, with heavy participation, for decades, and Code Enforcement staff thank the professionals who participated in the program over the years.

Technical license information can be sought from the State of North Carolina. In the meantime, Mecklenburg County Code Enforcement continues to be happy to offer assistance for trade professionals in the form of our [monthly trade consistency meetings](#) and through our [Residential Technical Assistance Center \(RTAC\)](#) and [Commercial Technical Assistance Center \(CTAC\)](#).

Certificates have been mailed to all current participants in the Journeyman programs. If you did not receive your certificate, please contact Electrical Code Administrator [Gary Mullis](#) or Mechanical & Plumbing Code Administrator [Tommy Rowland](#).

15. CODE ENFORCEMENT ANNUAL REPORT

Code Enforcement is pleased to present its reimagined [annual report](#) for Fiscal Year 2017. We hope our customers will benefit from reading about the work we are doing to partner with the industry in building a safe and thriving community. Available now on [MeckPermit.com](#).

16. NEW BOARD MEMBERS

- Andrew Kennedy is a Senior Project Manager with Terracon and has worked in the engineering field for more than 20 years. Andrew is a graduate of Virginia Tech and is currently serving as the Charlotte Chapter President for the Professional Engineers of North Carolina.
- Paul Stefano is the General Manager of Benjamin Franklin Plumbing for over 19 years. Paul is a graduate of Edinboro University of Pennsylvania.

17. RANSOMWARE ATTACK

On December 5th, it was discovered that our technology systems were comprised by a cyber-attack. All operational systems were shut down and all ports and gates were closed from any communication or transactions. Overall operations came to a halt and the Deputy Director and Management Team went into COOP mode. All internal system

communications such as phone systems, computers, printers and HR were shut off to external customers.

During this time, we reached out to our partners and associations to make them aware of this situation. All our partners and associations have been a tremendous help to us. We are grateful for the assistance in working with our customers and letting us know which projects were in a critical state.

During the first days of this crisis, the management team was determining operational systems available for our services. Our main communication was through Outlook emails. The second issue was our inoperable phone system.

We implemented a 'pronto' inspection call mode on Tuesday. On Monday, all Inspectors were advised they would begin using paper and phones as a primary tracking process. This meant that they were to begin taking inspection requests by phone and tracking each result. The Deputy Directors, Senior Management Team and front-line staff did a tremendous job. On day one, we were 30% operational, then on day two we jumped to 70% and continued to climb. A remarkable effort by all our employees.

This was a very difficult time since Permits and Plan Review operations leverage so much of our technology. We had many meetings on workflow to leverage the cyber-attack. Early on, we developed a workflow in which we felt strongly, would work on Monday the 11th to bring services back online.

We advised senior leadership (Dena, Leslie and Ebenezer) of the concept we developed but after hearing of additional incoming threats on all fronts; it was inevitable we would experience yet, another shut down. At that time, I made the official call and advised Leslie and Ebenezer that we would move to a full paper process.

Our primary focus was small projects, TIPS and In-Scope permits, as well as plan review for residential and OnSchedule projects that may have crucial closing timelines and financial obligations. In moving to paper, we became very limited to critical information stored in our servers. We understand that mistakes happen, but did all we could to have zero errors.

This created a very heavy workload within current processes used by staff. Since there are more steps in a paper process, it took more time to obtain necessary information and complete each project. We expected heavier overtime cost in all units. Tracking and rekeying the backlog of information took time. The workload became very heavy and we were backlogged in all units. We worked very hard to get back to normal operations, which took some time.

We are very proud of staff and their concentrated efforts to service our customers during this time. It is unheard of for a Department with full integration of technology, make a shift back to paper in less than 2 - 3 days; not to mention handle approximately 80% of the workload in the field and office without having a GIS and address table system available. Once GIS and the address table system became operational, we were able to map out a process to move forward.

18. EMERGENCY RESPONSE SOFTWARE TOOL

The Fire Marshal's Office (FMO) now has a new Emergency Response (ER) software tool that offers better tracking of all FMO activity to include inspections, investigations and public education.

System administrators completed a webinar training and began to utilize ER by custom tailoring activity categories and system navigation. Currently, all activity is being tracked within the Emergency Reporting software tool. FDM remains accessible through CFD, but will no longer be used to track Mecklenburg County FMO activity. We continue to utilize Charlotte Fire's crime investigation database, but will eventually transition all investigation activity and reports into the new ER software tool.

19. GOVERNANCE

The first meeting of the USDC was held on 10-16-17. Committee members are made up of City and County leadership with four County members and four City members to include the Assistant County and City Manager. In the first meeting we revisited the Charter, reviewed the Gartner report and discussed the future state model delivery system between departments. The following USDC meeting revisited key initiatives between the departments, focusing on new construction. The USDC will work to determine targets impacting both the City and County in communication, reviews, timelines and technology. In March 2018, the committee will meet with both the BDC and DSTAC and will provide an update on enhancements and process improvements in technology (to be determined by the committee).

20. INSPECTOR CLIENT FEEDBACK TOOL

The new Inspection Client Feedback tool was started as a pilot in July 2017. This was initiated from the model established within Commercial Plan Review. The survey tool is incorporated into our EPM review process. We have been highly successful in understanding the design community needs during their review process, as well as, determining any changes that could be implemented to provide a better experience in the overall process.

We have applied this same concept from the commercial plan review team to the field inspection teams. In our first reporting process to the BDC in December, it reflected positive responses in all areas (Residential, Commercial, Mega, and HCDT). The way the survey works; the customer receives a survey at the completion of a certain type of inspection request. Surveys are sent to identified individuals involved in the project designated by the Contractor and may include the project manager, architect, subcontractors and different trade engineers.

The biggest advantage we have seen is that surveys are permit project specific. We can identify common themes or problems occurring with service. By having the survey attached to the project, customers are usually specific when describing an issue that occurred; allowing us to research their issue more effectively and in a timely manner. It is all there.

At the beginning, customers complained about receiving too many surveys. We adjusted the solicitation process to reduce the number of surveys being distributed. We will continue monitoring the survey process to make any changes necessary.